

## Web Supplement 2: Key characteristics of included studies

| Study ID         | Study design, population & setting   | Measurement of control   | Health-related outcome(s)  | Covariates explored or adjusted for                                   | Results  | Quality assessment                                     |
|------------------|--|--|--|---|--|--|
| Bosma et al 2005 | Prospective cohort study (5 years follow-up.)<br><br>Netherlands, Groningen<br>Longitudinal Aging Study: N = 3888, adults aged 57+, without heart disease at baseline. | Composite control beliefs measure: general self-efficacy (defined as the extent to which people believe they can perform a certain behaviour measured with Sherer's General Self-Efficacy Scale) and mastery (measured using Pearlin and Schooler's Mastery Scale (Pearlin and Schooler, 1978.)) | Congestive heart failure (CHF): diagnosed if three of the following conditions were present (code K77 of ICPC) (Lambers & Wood, 1987).<br><br>Acute MI: diagnosed if two of three conditions were present (code K75 of the International Classification of Primary Care (ICPC) scheme) (Lambers & Wood, 1987). | Education, Occupation, income level, classical coronary risk factors. | Low control beliefs and low SES were both independently associated with a higher rate of heart disease (CHF & MI). Low control beliefs were also more common in the low SES group (47% vs 24%). Seven per cent of increased rate of heart disease for lower SES groups was explained by classical coronary risk factors. An additional 29 % of the difference was accounted for by control beliefs. Control beliefs were not strongly associated with classical coronary risk factors. | Selection 3*<br><br>Comparability 2*<br><br>Outcome 1* |

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| Chandola et al (2004) | Prospective cohort study (8 years follow-up.)<br><br>UK, Whitehall II Study: N = 7470 civil servants aged 35-55 (67% male). | Single statement about control at home 'At home, I feel I have control over what happens in most situations' (as Griffin et al 2002.) | Fatal coronary heart disease (CHD): defined as having a coronary death if the underlying cause had an ICD-9 code 410–414.<br><br>Non-fatal MI: defined as above.<br>Potential non-fatal MI: ascertained by questionnaire items on previous symptoms, investigations, diagnoses and treatment. | Civil service grade, household problems/financial difficulties, gender, CHD risk factors, physical & mental health. | A larger proportion of women who developed CHD reported low control at home compared to women without CHD ( $p = 0.00$ ). Both men ( $p = 0.08$ ) and women ( $p = 0.01$ ) from lower household social positions were more likely to report low control at home compared to those from higher social positions.. | Selection 3*<br><br>Comparability 2*<br><br>Outcome 2* |
| Griffin et al (2002)  | Prospective cohort study (5 year follow-up.)  | Single statement about control at home 'at home, I feel I have control  | Two sub-scales of the 30-item General health Questionnaire (GHQ) for depression   | Social class, employment grade, age, work grade   | After adjusting for age, work grade, and decision latitude, both women and men with low control at home had significantly higher odds of   | Selection 3*<br><br>Comparability 2*                   |

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|          | UK, Whitehall II Study: N = 7270 civil servants aged 35-55. | over what happens in most situations' - 6 categories: disagree strongly to agree strongly. | (4 items) and anxiety (5 items). | and decision latitude (at work), gender. | <p>suffering from depression (women: OR=2.51, CI=1.77–3.56; Men: OR=1.86, CI=1.52–2.28) and anxiety (Women: OR=1.75, CI=1.22–2.51; Men: OR=1.89, CI=1.52–2.35) than those with high control. Among women, low control at home more than doubled the risk for depression (OR=2.55, CI=1.78–3.63) and increased the risk of anxiety by almost 70% (OR=1.69, CI=1.18–2.43). For men, the odds for depression (OR=1.92, CI=1.57–2.36) and anxiety (OR=1.88, CI=1.52–2.34) were also significantly higher for those with low control at home than for those with high control at home.</p> <p>Women in the lowest grade and men in the middle and highest grades had the highest odds for anxiety disorders if they reported low control at home (for women, OR=2.55, CI=1.42–4.59; for men,</p> | Outcome 2*         |

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|                  |  |   |   |   | middle grade, OR=1.86, CI=1.33–2.58, and highest grade OR=2.17, CI=1.60–2.94).  |  |
| Bosma et al 1999 | Prospective cohort study (6 years follow-up)<br><br>Netherlands, random sample from GLOBE study: N = 2462 adults aged 25-74 years.   | Perceived control: 11-item Dutch version of Rotter's Locus of Control scale.  | Mortality: Information on all-cause mortality from municipal population registers.  | Education, occupation, income level, age, sex, health status  | People scoring 1 SD higher on the perceived control scale (indicating decreased control) had a 1.45 times higher mortality risk (95% confidence interval 1.19 to 1.75). The average percentage of raised mortality risk in the lowest socioeconomic groups that was accounted for by perceived low control was 51% (range: 37-65).  | Selection 3*<br><br>Comparability 2*<br><br>Outcome 1* |
| Ross & Wu 1995   | Prospective cohort study (1 year follow-up and cross-sectional study.)<br><br>1. Cross-sectional data on national sample of US households, adult respondents (N=2031).<br>2. Data from | 1. 2 x 2 index that balances statements claiming or denying control over good or bad outcomes; 1. One question on control over one's future health. | Self-rated health: respondent's subjective assessment of his or her general health (coded 1 = very poor, 2 = poor, 3 = satisfactory, 4 = good, 5 = very good).<br><br>Physical functioning: index of seven – activity-related - | Sex, minority status, age, marital status, Educational level, work and economic conditions, social-psychological resources, health lifestyle. | Longitudinal analysis: A high sense of control over one's future health significantly slowed the decline in self-reported health over time. Work and economic conditions, social-psychological resources (including perceived control), and health lifestyle explained 43% of the total effect of educational level on the change in health.<br><br>Cross-sectional analysis: A high sense of personal control over | Selection 4*<br><br>Comparability 0*<br><br>Outcome 1* |

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|   | national sample of US households, adult respondents, in 1979 (N=3025) and 1980 (N=2436).  |  | items (coded 0 = a great deal of difficulty, 1 = some difficulty, and 2 = no difficulty).   |                                     | one's life in general and one's health in particular were significantly associated with good self-reported health. The sense of control over one's life and one's future health were both significantly associated with good physical functioning. |  |
| O'Brien 2012  | Prospective cohort study (8 years follow-up.)<br><br>USA, national probability sample from Midlife in United States: N = 3775 aged 24 – 75. | Control beliefs: Lachman & Weaver and Pearlin & Schooler scales (2 components: personal mastery and personal constraints.) | Chronic health: 28 items on serious health issues.<br><br>Functional limitations: 9 items adapted from SF-36.<br><br>Depressive symptoms: 6 items of a 5 point scale. | Education, social support, strain.  | With high control, there were no significant increases in chronic illness, at all levels of education. Low education/low control groups had the greatest increases in chronic health issues.   | Selection 3*<br><br>Comparability 2*<br><br>Outcome 1* |
| Notes   |   |  |   |                                     |  |  |
| Study order reflects that in the main text.   |   |  |   |                                     |  |  |
| Study quality is judged on three broad perspectives: the selection of the study groups ('Selection'); the comparability of the groups ('Comparability') and the ascertainment of either the exposure or outcome of interest for case-control or cohort studies respectively ('Outcome'). A maximum of 4* can be given for 'Selection', 2* for 'Comparability and 3* for 'Outcome'. The higher the star rating the higher the quality judgement. |   |  |   |                                     |  |  |

